



No Club Meeting in January Next meeting in February Belviour Guides Hall 6 Silva Drive West Wodonga

Meetings commence with a BBQ (with a donation tin for meat) at 12pm with meeting afterwards
Members are encouraged to turn up a little earlier for clubroom maintenance
Call in Via VK3RWO, 146.975, 123 Hz tone



One reason your internet speeds vary at times

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NEVARC VK2RWD 6M repeater and 2M repeater upgrade

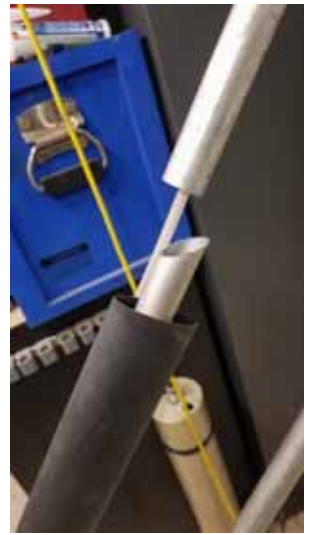
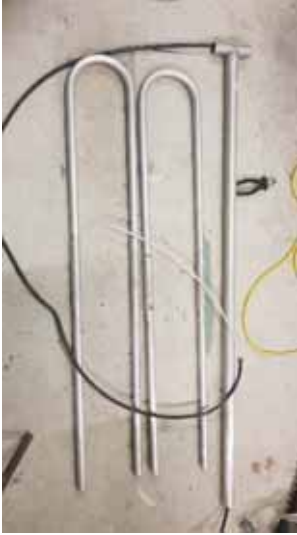
Over the last few months, VK3VS has been busy finalising the 6M repeater for Goombargana. (50km N/W of Albury Wodonga, about 400M ASL).

The repeater and cavities have been made over 12 months ago, what was missing was an antenna and some interconnect leads. The antenna was built out of an old broadcast band dipole.

Everything had to be made longer.

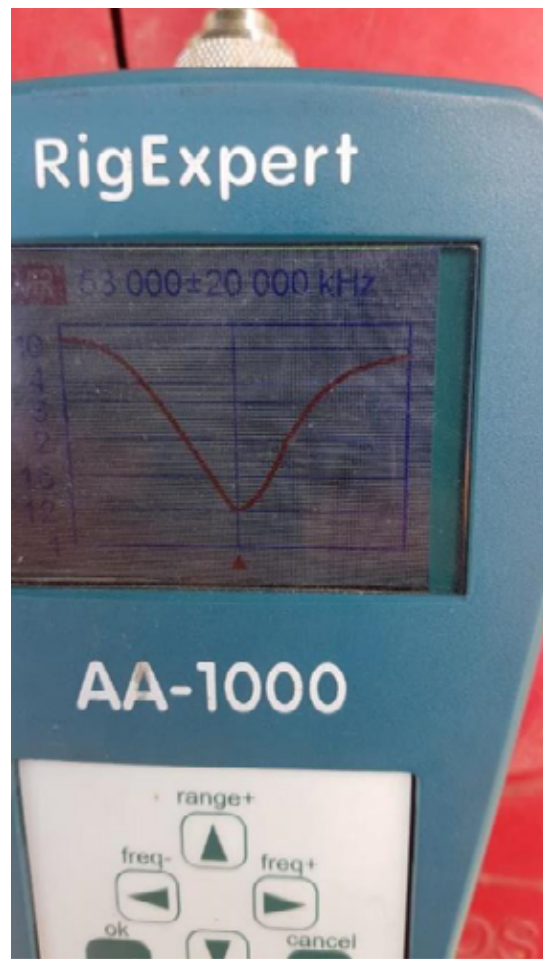
Time to learn how to solder aluminium.

VK7DB made some designs using MMANA-GAL and it was built off that.



Everything had to be cleaned up with a stainless brush, then aluminium soldered for a nice bond using an oxy torch.

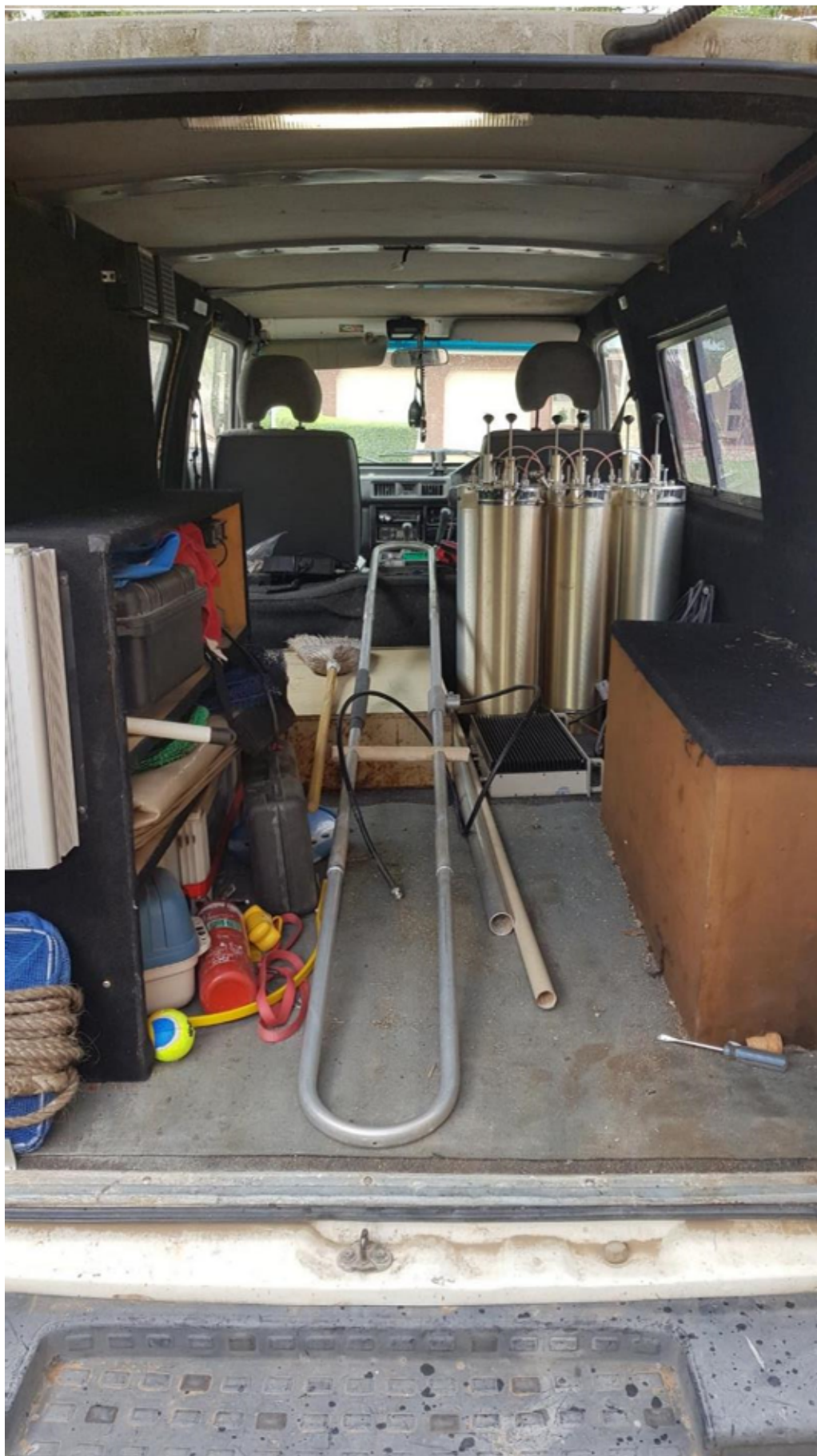
As you can see, the final product looks very professional and had a beautiful SWR at the centre frequency.



A scrap bit of Belden 9913, some connectors and we are ready to go.



On Tuesday 3rd December, both VK2VU and VK3VS found some time to go up to the site to install.
150Km round trip for VK3VS.







Installation was fairly straight forward, as there is no room left on the tower, the antenna was installed only 5m off the ground. It's not the best install, but at least it is up there.







Unfortunately when we were up there, we found that there was local noise on the input of 52.500MHz. This noise was coming from the hut next door, from their solar system.

Due to this, a quick onsite modification to the repeater to wind the squelch up to 1uV to stop the noise, and then turned the power down.

The reason for this was that, given the squelch is high, and the power is low, when the band opens up, if you can hear it, you will be able to get into it with a bit of grunt.

There was no point leaving the power turned up as you would hear it and not be able to access it.

The frequency is 53.500 output, 52.500 input with NO sub tone

There was another reason to attend the site.

We are in the midst of constructing two new repeater sites.

We require cans for these sites.

The 2M (146.700) repeater had 8 bandpass cans to get it to work when we first set it up.

Over the course of the last 12 months, I built a new set of pass/reject cans for it.

These needed to be installed so the existing cans could come out and be re-configured for the new repeaters.



Reports so far show that the coverage of the 2M repeater has been improved with these new cans, as they have more isolation and lower insertion loss.

Currently, the 6M repeater is linked into the VK3RWO 2M repeater one way, via VKLink, so we can monitor the 6M repeater.

A click of a button allows 2 way linking should the band open up.

~Matt, VK3VS



Saturday 25th January 2020 - 06:00 UTC until Sunday 26th January at 12:00 UTC.

It's to promote/encourage the use of AM on 160, 80, 40, 20, 15, 12 and 10-metre amateur bands. This is not a 5/9 contest but aims to encourage QSOs and conversation however, points can be gained and certificates awarded.

There will be points to be gained for each QSO and for each new DXCC worked and there are many power categories you can enter. However whilst there are points up for grabs and also certificates to win, the main aim is to get people having conversations using the original voice mode! Much like the AM CW days here in Oz.

So fire up those vintage rigs, build that homebrew transmitter or even use your modern equipment and experience the joy of AM and particularly AM to G-Land.

Date: Saturday February 15, 2020 @ 2300 GMT to Sunday February 16, 2020 @ 2300 GMT

Bands: 160, 80, 40 and 20 Meters

Objective: To promote and encourage the use of AM as a mode of operation in Ham Radio and to have fun. We all know that AM is alive and well! This will be your best chance to hear a wide variety of vintage gear and modern gear operating on AM. You will be talking to some of the friendliest people on the air. While use of older tube gear is encouraged, we also want to welcome people using modern gear. Some modern gear includes, Class D and E transmitters, SDR transceivers and don't forget about the conventional multimode rig that has an AM on the mode switch.

Frequencies: Around 1.885 or 1.945, 3.835 - 3.890, 7.280 - 7.295, 14.275 - 14.295 and 14.340. West coast stations may want to try 7.160.

Exchange: Name, state, (province, or country). That keeps the log simple, but don't be afraid to talk about your station, or to ask about another station. This event is about fun, above all. Be friendly to new AM stations and help those with transceivers get active on AM. Even if you only make a few contacts, please send in a log so that we will know who is participating and we can track the QSO count per band. This allows us to make changes from time to time to make the event in more popular.

Scoring and Multipliers: Stations producing 25 watts or less carrier OUTPUT, each contact counts as 3 points. Stations producing 25-100 watts carrier OUTPUT, each contact counts as 2 points. Stations with more than 100 watts OUTPUT count as 1 point. All 20 meter contacts count 5 points regardless of power output. You may contact each station only once per band.

Flagship Stations: There will be two authorized flagship stations participating in the AM QSO Party. These stations will not be included in the score summary ranking, but their scores will be listed separately in the results. W2AN is the AWA Museum callsign and this call will be used by various volunteer stations in the contest. The first contact with each flagship station counts 10 points, all subsequent contacts with that station are 1 point. You might work a flagship station on another band, but any subsequent contacts are scored as 1 point, except for 20 meters. Ron, our event coordinator for this event, has volunteered to be the Midwestern area flagship station again this year. If things go as expected, the East Coast flagship station will be operating from the AWA Museum. Any changes to W2AN from the AWA Museum will be posted on the AWA website.

Full details of the AM QSO Party can be found at
<https://amqsoparty.wixsite.com/mysite?fbclid=IwAR0bmXPQqQa9-QVoNM7HdIBcqqcAfDJR4F0935RKG0VZZn6gnNtCVDQnxg>

VK3RTV ~ December Update



At this stage I understand the floor of the hut at Mount View is due for a second coat of epoxy paint.

I am hoping to install equipment when that has been completed.

An antenna from RFI (BA80-67) 6dB Omni has been ordered and paid for.

We are planning to install in January, but it will be dependent on the availability of the Riggers who have offered their services.

Remember that the downlink will be 445.5 MHz QPSK vertically polarized and the uplinks on 1246, 1255 and 1278 MHz DVB-S, 4000 Ks/s, FEC $\frac{3}{4}$, horizontally polarized.

Although the RFI antenna was expensive, there is still some money in the VK3RTV Account due to the very generous donation from WANSARC of \$1050, there will be a number of ancillary costs associated with this new installation, there always is. Technical data on the RFI Antenna on next page.

I have used the program below to do some plots around Mount View.

Unfortunately it always starts in the US, but it is still very useful. It does not allow for buildings that may be in the way, but does allow you to add the height of the antennas.

<https://www.scadacore.com/tools/rf-path/rf-line-of-sight/>

~Peter Cossins VK3BFG

← Mount View Tower

UHF Omnidirectional Dipole Arrays

330-520 MHz

Binary Array Series

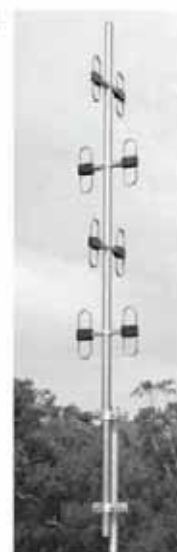


These high performance UHF dipole arrays are ideal for highly populated radio sites requiring long haul omnidirectional coverage. They operate over entire bands and offer gains of 3, 6 or 9dBd (depending on model) exhibiting a VSWR of <1.5:1 across the band.

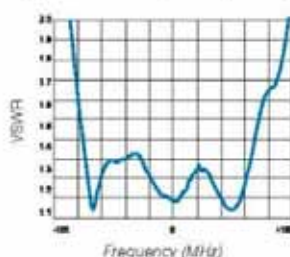
The arrays utilise an internal phasing harness in PTFE based double screened coaxial cable with polyethylene jacket to aid waterproofing and resist bird attack. The use of a unique phasing arrangement provides extensive side lobe suppression and null fill characteristics. The arrays will accept an input power level of 500 watts continuous, making them ideal for high power multiple transmitter applications. The BA80 series are offered with 3°, 5° or 8° downtilt, to further enhance close-in coverage characteristics.

Features:

- Ideal for highly populated sites requiring long haul omnidirectional coverage
- Operate over entire 330-420 or 400-520 MHz bands
- Inverted mounting version available
- Industry leading PIM ratings (<150dBc) providing low IM and low noise characteristics for optimum performance
- DC grounding on all elements for the ultimate in lightning protection and dissipation of static noise
- Hermetically sealed internal phasing harness

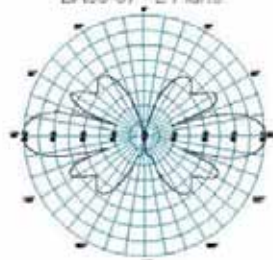


Typical VSWR Response (BA60-67)



Model Number	BA40-57	BA40-67	BA80-57	BA80-67	BA160-67-T
Nominal Gain <i>dBi (dBd)</i>	5 (3)		8 (6)		11 (9)
Frequency <i>MHz</i>	330 - 420	400 - 520	330 - 420	400 - 520	
Tuned Bandwidth	Entire band				
VSWR (Return Loss)	<1.5 :1 (14dB)				
Nominal Impedance Ω	50				
Downtilt	Not offered		0° Std, -3°, -5°, -8°. See note (1)		3
Vertical Beamwidth*	30		16		9
Horizontal Beamwidth*	Omni +/- 0.5dB				
Input Power (Watts)	500				
Passive IM 3rd order <i>dBc</i>	<-150				

BA60-67 - E Plane



Mechanical

Model Number	BA40-57	BA40-67	BA80-57	BA80-67	BA160-67-T9
Construction	All welded aluminium with anodised finish. See (2) and (3) for alternate finishes				
Length <i>m</i>	2.1	2.1	3.0	5.0	
Weight <i>kg</i>	5.0		8.0	20.0	
Termination	N female with 0.5m 9142 cable tail. See note (4)				
Mounting Area	500mm x 48mm diam. aluminium				500mm x 63mm diam. aluminium
Suggested Clamps	2 x UC1				
Projected Area <i>cm</i> ²	No ice	1913	1833	3222	3063
	With ice	3182	2920	5925	5451
Wind Load (Thrust) @ 160km/h <i>N</i>	227	217	382	363	716
Wind Gust Rating <i>km/h</i>	240		235	240	215
Torque @160 km/h <i>Nm</i>	116	111	382	363	1417

(1) Factory pre-set downtilt of 3°, 5° or 8° may be specified on BA80 series antennas using model no. trailer -T3, -T5 or -T8

(2) Ruggedised black powder coat finish (aids in ice shedding for extreme conditions) is available on all aluminium arrays

(3) BA40 and BA80 series may be optionally supplied in all welded 316 Marine Grade Stainless steel. Dimensions vary slightly

(4) Connector termination option available of 7/16 DIN female connector using model no. trailer -DIN

Visit to EMDRC Christmas BBQ

An invitation to the EMDRC Christmas BBQ came my way so I dropped in. They have a very good club room setup, being the largest amateur radio club in Melbourne. The scout hall is right next to a park, so room for wire antennas and large gatherings.

A full history of the club is on their website if you want to read it, a 64 page PDF... <https://www.emdrc.com.au/club-history/>

The photos tell the story...

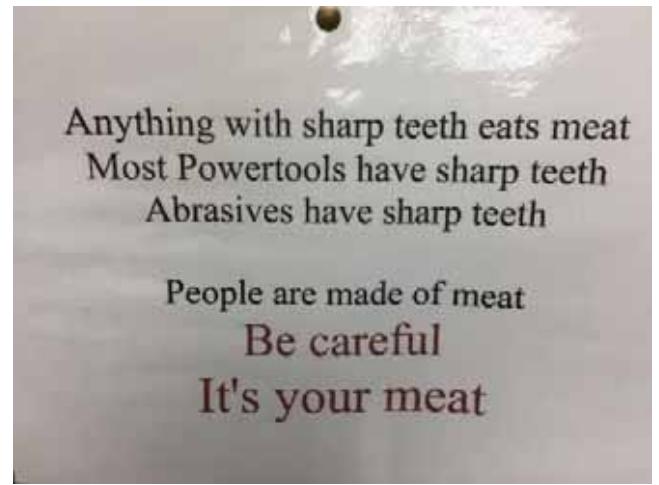


The radio room, note all the club awards on the walls gathered over many years





EMDRC Radio Room Sign



Sign in EMDRC Workshop

Rear of clubrooms with HF beam, long wire, dipole and 160mx vertical





Amateur Television Transmitter and Video & Audio Mixing Console



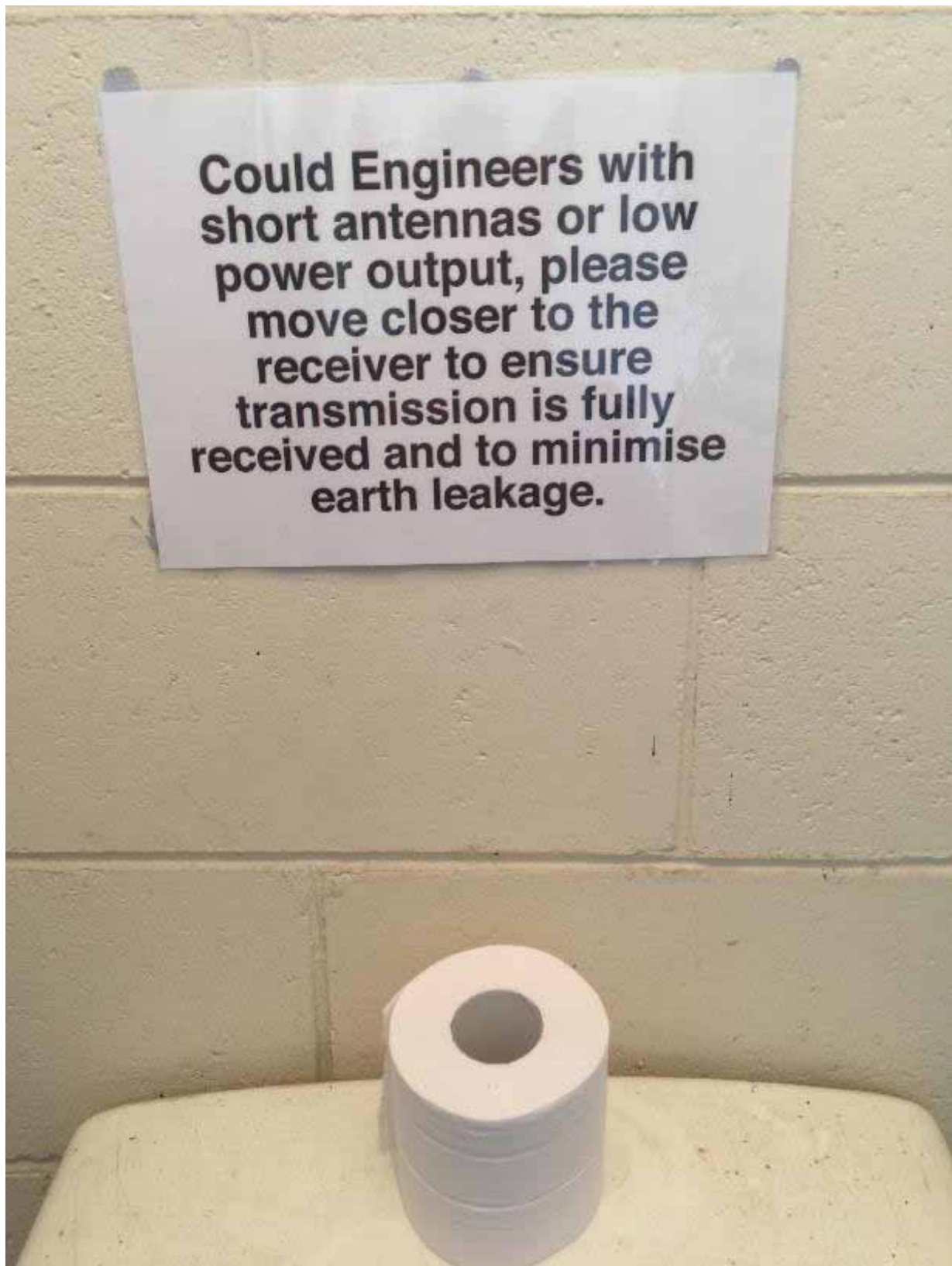
The EMDRC Workshop

One of many signs on the walls



Christmas Feasting





Sign in EMDRC Toilets

The Original Sin



Yet another... Christmas at EMDRC was very tasty and entertaining.

~Mick VK3CH

VHF UHF Field Days

Summer 2020

Saturday 18 and Sunday 19 January

<http://www.wia.org.au/members/contests/vhfuhf/>

Contest Introduction

The VHF-UHF Field Days provide VHF-UHF operators with the opportunity to "head for the hills" and see how far and how many they can work.

The Field Days have separate sections for single and multiple operator stations. The duration of the Field Day is 24 hours, but there are also 8 hour sections for operators who may not be able to camp overnight. Most club stations prefer to operate for the full 24 hours.

The Field Days also generate plenty of activity from home stations, so there is also a separate Home Station section.

All contacts must be simplex: contacts through repeaters or satellites are not allowed. There is plenty of FM activity, but one feature of the Field Days is a high level of SSB activity.

It is possible to do very well with only modest antennas if you pick a good hilltop. Another option, if your station is easily transportable, is to operate from more than one location during the contest period.

Aim of the Contest

The overriding aim is to get away for the weekend and have fun! But next after that, the aims are:

- to encourage more activity on VHF and microwave bands;
- to encourage people to work greater distances than usual by operating portable, and
- to provide opportunities for people to activate or work into new grid squares.

+ +

M.A.R.T.G.160 metre Net

Peter, VK3XCO, advises that the M.A.R.T.G. group are conducting a weekly net on 160 meters.

This is held each Wednesday evening commencing at 8.00pm on 1860 kHz.

Peter is hoping that over a period of time people will know of the net and set a challenge to come up on "Top Band".

NEVARC Nets



40M Net

Monday, Wednesday and Fridays
10am Local time (East coast)

7.095 MHz LSB

Approximately + or - QRM

Hosted by Ron VK3 AHR

80M Net

Wednesday 20:30 Local time

3.622 MHz LSB

Hosted by Ron VK3 AHR

Using the club call VK3ANE

2M Nets

Monday at 2000 local time on
VK3RWO repeater

146.975 MHz

President, VK2VU, Gary
Vice President, Tom VK3NXT
Secretary, VK2FKLR, Kathleen
Treasurer, Amy



NEVARC CLUB PROFILE

History

The North East Victoria Amateur Radio Club (NEVARC) formed in 2014.
As of the 7th August 2014, Incorporated, Registered Incorporation number A0061589C.
NEVARC is an affiliated club of the Wireless Institute of Australia.

Meetings

Meetings details are on the club website, the Second Sunday of every month, check for latest scheduled details.
Meetings held at the Belviour Guides Hall, 6 Silva Drive West Wodonga.
Meetings commence with a BBQ (with a donation tin for meat) at 12pm with meeting afterwards.
Members are encouraged to turn up a little earlier for clubroom maintenance.
Call in Via VK3RWO, 146.975, 123 Hz tone.

VK3ANE NETS

HF

7.095 MHz Monday, Wednesday, Friday - 10am Local time
3.622 MHz Wednesday - 8.30pm Local time

VHF

VK3RWO Repeater 146.975 MHz – Monday - 8pm Local time
All nets are hosted by Ron Hanel VK3AHR using the club callsign VK3ANE

Benefits

To provide the opportunity for Amateur Radio Operators and Short Wave Listeners to enhance their hobby through interaction with other Amateur Radio Operators and Short Wave Listeners. Free technology and related presentations, sponsored construction activities, discounted (and sometimes free) equipment, network of likeminded radio and electronics enthusiasts. Excellent club facilities and environment, ample car parking.

Website: www.nevarc.org.au

Postal:

NEVARC Secretary
PO Box 69
Wahgunyah Vic 3683

Facebook: www.facebook.com/nevicARC/

All editors' comments and other opinions in submitted articles may not always represent the opinions of the committee or the members of NEVARC, but published in spirit, to promote interest and active discussion on club activities and the promotion of Amateur Radio. Contributions to NEVARC News are always welcome from members.

Email attachments of Word™, Plain Text, Excel™, PDF™ and JPG are all acceptable.

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Please include a stamped self-addressed envelope if you require your submission notes returned.

Email attachments not to exceed 5 Mb in file size. If you have more than 5 Mb, then send it split, in several emails to us.

Attachments of (or thought to be) executable code or virulently affected emails will not be opened.

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While we strive to be accurate, no responsibility taken for errors, omissions, or other perceived deficiencies, in respect of information contained in technical or other articles.

Any dates, times and locations given for upcoming events please check with a reliable source closer to the event.

This is particularly true for pre-planned outdoor activities affected by adverse weather etc.

The club website <http://nevarc.org.au> has current information on planned events and scheduled meeting dates.

You can get the WIA News sent to your inbox each week by simply clicking a link and entering your email address found at www.wia.org.au The links for either text email or MP3 voice files are there as well as Podcasts and Twitter. This WIA service is FREE.